12-BIT WORLD . . . .

Contributions and correspondence should be sent to:

    Robert Hassinger, 12 Bit Coordinator
    c/o DECUS   ..or.. Liberty Mutual Research Center
    249 Northboro Rd (BP02)   71 Frankland Road
    Marlboro, MA 01752   Hopkinton, MA 01748

(Please include reference to Newsletter number and page when inquiring about
material published.

NEWSLETTER SUBMISSIONS

     Submissions are accepted at all times and are normally used in the next
issue to go to press regardless of date of receipt. Based on the current
schedule, material must be received by the first day of February to be included
in the next issue.

     Material submitted in machine readable form is particularly desirable
because it can be edited and incorporated into the newsletter format more
easily. Higher quality reproduction is also possible this way. Contact Bob
Hassinger for further details on acceptable media and formats if you plan to
make a submission in machine readable form.

OS/278 FOR DECMATE I AND EARLIER SYSTEMS - FOLLOWUP

     In the last newsletter I reported on the current situation regarding
making OS/278 available on eight inch RX01 floppy disks for use on DECmate
I and earlier systems. At that time I said that the DECUS staff had asked
me to wait until the end of September before doing anything about it because
they had been in contact with people in DEC who requested we do this. It
is now the fifth of November and I have tried several times to follow up with
Andy Powderly at DECUS on this without success.

     Since I do not have the required hardware, the only way I can make an RX01
version of OS/278 is with the assistance of DECUS where the hardware is
available. However, anyone else with access to the required hardware
(a DECmate II with the RX01/2 option and drive) could build and submit an RX01
version of the current DM-101 release. Since DECUS software is public domain,
anyone should be able to submit a revised version such as this without a
problem. If anyone is interested in doing this and they need advice or help
they can contact me (Bob Hassinger).

Robert Hassinger
- address above -
(617) 435-9061

COS/DIBOL and WPS liason
Lawrence H. Eisenberg
17141 Nance Street
Encino, California 91316
(818) 788-0354

Education, Multiuser systems, PASCAL
Father Geoffrey Chase O.S.B.
Portsmouth Abbey School
Portsmouth, RI 02871
(401) 683-2000

Representitive to DECUS Product Planning Committee
Jim van Zee
Lab Data Systems
10320 Ravenna Ave NE
Seattle, Washington 98125
(206) 522-6950

12 Bit Software Project
Wally Kalinowski
The Aerospace Corporation
PO Box 92957
Los Angeles, CA 90009
(213) 648-6940

12 BIT SOFTWARE PROJECT UPDATE

Wally Kalinowski has been working for some time to get as much as possible of the popular commercial 12 bit software into the public domain. He has been asking for pledges of money to help with this.

He recently wrote to say he has acquired the MULTOS/8 operating system for release to public domain and will soon send it to DECUS. He is working on VISTA, HIBOL, ACID, ICE and PAGE/8 too. If you are interested in helping, Wally's address is in the committee listing at the beginning of this newsletter.

DECMATE-III NEWS - WPS VERSION 2, OS/278 AND COS-310

Rudi Stange writes: "During the 12-Bit SIG meeting in Frankfurt, Gy. October 11th, I demonstrated the DECmate-III with WPS Version 2, which is quite impressive with up to 100 user definable keys, Foot Notes, Graphics incl, Greek alphabet, Searches which include the carriage return, automatic expanding ruler up to 250 characters per line, etc. When I wanted to load OS/278 and COS-310, it refused to boot.

"The bootstrap ROM is different from DECmate-II. Taking the DECmate-III apart, one can replace this ROM with the one from DECmate-II, but then the integral Modem would not work (as far as I could see). Since I still have the

"COPYRX" program under OS/278, it was possible to just copy the firmware from the WPS floppy onto the OS/278 floppy (on a DECmate-II), after which it booted all right on the DECmate-III; same with COS-310 floppy. Please provide this information in the next newsletter. Someone should also provide an updated OS/278 floppy to the DECUS library. When I am going to do it, it will take at least 3 months, since there is a lot of "red tape" involved with DEC employees donating anything to DECUS."

Editors notes: Rudi works for Digital Equipment GmbH. The COPYRX program he mentions was part of a pre-release version of OS/278 that circulated fairly widely but it is not formally in the public domain and DECUS does not have it. One of things it can do is copy the firmware on DECmate II/III RX50 system floppys. Normal software can not do this because the firmware is stored in blocks that are outside the addressing range of the system device drivers. It is interesting to note that all systems (WPS, OS/278, COS-310...) all have the same firmware on them.

I asked a DEC representative at a recent presentation about the WPS versions. She told me the current WPS version 1.5 would run on both DECmate II and III. She said there is a WPS version 1.6 which just adds the capability to drive the new LQP03 printer. She also said the new version 2.0 that Rudi mentions will run on both DECmate II and III. She did not say when WPS version 2 would be available or how much it would cost new or as an update. She also did not have anything to say about using version 2 on DECmate I or older WPS systems.

PC NEWSLETTER

Rudi Stange also writes to say: "I would strongly advise all DECmate users obtain the "perspective" Digital's Personal Computer Newsletter from Madeline D. Flynn OG01-2/W08, Digital Equipment Corp., Field/Operations/Sales Headquarters, Old Bolton Road, Stow, MA, 01775. It appears approximately 3 to 4 times a year and generally hold valuable information to all PC users."

GETTING OS/278 TO WORK ON DECMATE III

As noted in the material from Rudi Stange, the DECmate III will not work with the version of OS/278 that is in DECUS (DM-101). As Rudi reported, the reason is that some changes in the bootstrap ROM were made in the DECmate III and the DECmate II version of the loadable firmware ("slushware") on the current OS/278 system disk is not compatible with the new bootstrap ROM.

I have encouraged the author of OS/278 to submit an updated version of OS/278 that fixes this and other problems but he is very short of time and it is not clear when he will be able to work on it. He did tell me about a work around however.

What is needed is to get a copy of the new DECmate III compatible "slushware" code onto your OS/278 system disk. This is hard because it is stored on the disk in areas that the system device drivers can not access so ordinary programs that use normal device drivers can not do the job. The COPYRX program Rudi mentioned contains special code that bypasses the normal device drivers to access the disk directly. The problem is that COPYRX is not generally available.

The answer is that the version of PIP in the current release contains the special code required and there are undocumented option switches to use it.

1) As reported in previous newsletters there is the undocumented command PIP that calls up the PIP program. This command is required because the traditional way of using PIP from the OS/8 days (R PIP or RUN PIP) is not allowed in OS/278.

2) The PIP /Y option uses the special internal disk access code to do all the things required to copy a system disk, including copying the slushware and doing some special fixup on the boot block in eight bit mope. As mentioned before, this is a way to copy system disks. It does not solve the DECmate III problem however.

3) There is another undocumented PIP option, /X, that will copy just the firmware from one disk to another (it is actually a subset of the /Y command). It must be used with device names RX50:, RX51: and so on. It will not work with device names like SYS:. If you want to copy the slushware area you would use a command like:

    PIP RX50:<RX51:/X

This particular version would copy the slushware area on the right hand drive (drive number one) onto the disk in the left hand drive (drive number zero, the system disk).

    With this capability, you can build an OS/278 system disk that would boot on a DECmate III by doing the following.

1) You need some sort of system disk that will boot on the DECmate III. This would most likely be a WPS disk. Because it will boot on a DECmate III, we know it has the new version of the slushware on it.

2) On a DECmate II, boot an OS/278 system disk in the left hand drive (drive zero), put the floppy that boots on the DECmate III in the right hand drive (drive one), and use the above command to copy the slushware from it onto the OS/278 system disk.

    At this point you should have an OS/278 system disk that will work on both DECmate II and III. You should be able to duplicate it on a DECmate III. Be very careful to use copies of your distribution disks, not the originals, when doing all this. There are lots of ways to get in trouble and you do not want to damage your original disks.

    Since I do not have access to the hardware to test all this out, you will have to just try it and see what happens. Hopefully, someone with access to the hardware will build an updated version of OS/278 and submit it to DECUS.

REPLY ON LQP02 ESCAPE SEQUENCES

    In the last newsletter Rudi Stange asked about the escape sequences for the LQP02 pitch and lines per page control. Pierre M. Hahn, the chairman of the Long Island DECUS LUG (Local Users Group) sent the following: "I have been able to set the LQP02 via CX communication to any line/page using the Escape [Pn t
with Pn varying 1-128, per LQP02 Programmer Reference Manual EK-LQP02-RM001. The page length mode can only go from 1 to 128, not 168 as stated in the manual.

I tried various numbers 1, 3, 5, 7, 11, 13, 23, 37, 59, 66, 88, 128 all worked. Beyond 128 gives results of very few line for a FF character, e.g. 3 lines for 132. Did not go further, Atlanta (the PC hotline) is supposed to look at the

problem. If their responses are like response to SPRs it will not be very
effective.

        "In the same manual for horizontal pitch there are but 10, 12 and 15 pitch
capabilities with the Escape [Ps w sequence Ps of none, 0, 1, 5, 6, 7, 8, all
give 10 pitch;Ps of 2, 3, 4 are for 12 pitch and Ps of 9 for 15 pitch."

DECUS LIBRARY NEWS

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        12 bit programs recently added to the DECUS Program Library:

DECUS 8-935 - FODT: FORTRAN IV On-line Debuging Tool for OS/8

        Version: V1, May 1984

        Author: Raymond Wong, RAN Research Laboratory, Darlinghurst, NSW,
                 Australia

        Operating System: OS8 V3S

        Source Language: FORTRAN IV

        Memory Required: 2850 words

        Special Hardware Required: FPP8-A or FP12

        FORTRAN IV On-Line Debugging Tool (FODT) is a subroutine which allows the
        programmer to examine/modify the contents and monitor program flow at run
        time. It provides the following facilities: examine/modify memory
        contents in octal, decimal, or ASCII formats; set program break-points
        at entry or exit points of subprograms; set break-points at prescribed
        program lines;
        find addresses of main program and subprogram entry points; examine
        subprogram argument addresses and contents; trace subprogram callers on
        program break; and a HELP routine.

        FODT is composed of a set of relocatable modules which are loaded with the
        user program. It is invoked by a subroutine call at the beginning of the
        mainline program.

        Documentation is on magnetic media.

        Media (service Charge Code): DECtape (HA), Floppy Diskette (KA)

        Format: OS/8

DM-106 - ISAM and Screen Handler (DECmate II)

        Version: July 1984

        Author: Rudi Stange

        Operating System: COS-310 V9.0 or later

        Source Language: DIBOL

        Memory Required: 16KW

Two subroutines are supplied: 1) demonstrating the index sequential access method, 2) enabling easy screen handling of 1...100 separate fields on the screen. Each field is controlled for alpha and/or numerical input/output as well as decimal point control. The cursor can be started in any desired fields, skipping desired fields, backspacing fields and/or restricting access to certain field(s). A sample customer data base is included to demonstrate the operation. File READ.AS gives hints to programmers as well as to users. Operation is initiated via a menu. A blank floppy must be inserted into DZ1: to operate the Demos.

Changes and Improvements: Converted from PDP-8 to DECmate II. Improvements to the Screen Handler.

Restrictions: User must have a valid COS-310 license.

Documentation on magnetic media.

Media (Service Charge Code): 5 1/4" Floppy Diskette (JA)

Format: OS/8

SOFTWARE AVAILABLE FOR THE DECMATE II FROM DEC

Rudi Stange contributed the following list of software available from DEC for the DECmate II. It is extracted from the May 1984 issue of DEC SPD A0.00.01, External Application Software and Digital Classified Software with additional information added by Rudi. I am including it here in the Newsletter because I get so many calls on this subject. It seems that many users find it difficult to get this kind of information.

Product Name	Operating System	Model No.	SPD No.	Part No.
Alpine Client Accounting System	DECmate II	QA491	A2.25.00	AE-AB17A-TV
ALS Expanded Reports and Summaries	DECmate II CP/M	QA573	A3.10.00	AE-AS70A-TV
ALS Legal Calender and Docket Control	DECmate II CP/M	QA572	A3.11.00	AE-AS71A-TV
ALS Legal Time and Billing System	DECmate II CP/M	QA571	A3.09.00	AE-AS69A-TV
BPI Accounts Payable	DECmate II CP/M	QA076	A0.89.00	AE-R176A-TV
BPI Accounts Receivable	DECmate II CP/M	QA075	A0.88.01	AE-R175B-TV
BPI General Accounting	DECmate II CP/M	QA078	A0.61.02	AE-P472C-TV
BPI Inventory Control System	DECmate II CP/M	QA077	A0.90.00	AE-Z341A-TV
BPI Job Cost	DECmate II CP/M	QA079	A0.91.01	AE-R178B-TV
BPI Payroll	DECmate II CP/M	QA074	A0.87.01	AE-R174B-TV
BPI Personal Accounting	DECmate II CP/M	QA080	A0.92.01	AE-R179B-TV
Condor 1 File Manager	CP/M 86/80 DECmate II	QA318-C3	A1.52.03	AE-V865D-TV
CONDOR 3 Data Base Manager	DECmate II CP/M	QA319-C3	A1.53.02	AE-V866C-TV
CP+ (CP/M V2.2 Utility)	DECmate II CP/M	QA419	A1.60.00	AE-V867A-TV
DAISY-AIDS	DECmate II		A1.15.03	AE-V832D-TV
DEADLINE	DECmate II	QA747	A2.85.01	AE-AE00B-TV
DECmate II Construction Business		QWA36	60.12.00	AE-BG26A-TV
DECmate II, CP/M 2.2, V2.0			60.01.04	AE-N853E-TV
DECmate II Master Menu			60.13.00	AE-BL53A-TV

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DECmate II/WPS                                          60.02.02 AE-P786C-TA
Digital Accounting System
    Accounts Payable            DECmate II CP/M QA499    A2.75.00 AE-AB32A-TV
Digital Accounting System
    Accounts Receivable         DECmate II CP/M QA498    A2.74.00 AE-AB31A-TV
Digital Accounting System
    General Ledger              DECmate II CP/M QA500    A2.76.00 AE-AB33A-TV
Digital Accounting System
    Inventory Control           DECmate II CP/M QA504    A2.34.01 AE-Y956B-TV
Digital Accounting System
    Order Entry                 DECmate II CP/M QA501    A2.77.01 AE-AB34B-TV
Digital Accounting System
    Payroll                     DECmate II CP/M QA503    A2.79.00 AE-AB36A-TV
Digital Accounting System
    Sales Analysis              DECmate II CP/M QA502    A2.78.01 AE-AB34B-TV
DPATCH                          DECmate II CP/M QA358-C3 A1.62.00 AE-V869A-TV
EasyEst                         DECmate II CP/M QA721(?) A3.36.00 AE-CG55A-TV
EBS Manufacturing System        DECmate II      QA355    A1.57.02 AE-X363C-TV
IMS Church Management System    DECmate II CP/M QA337-C3 A1.30.00 AE-V845A-TV
IMS Dental Office Mgmt. Sys.    DECmate II CP/M QA343-C3 A1.36.00 AE-V851A-TV
IMS Fund Accounting System      DECmate II CP/M QA338-C3 A1.31.00 AE-V846A-TV
IMS Job Accounting System       DECmate II CP/M QA339-C3 A1.32.00 AE-V847A-TV
IMS Mailing List
    Management System           DECmate II CP/M QA347-C3 A0.96.02 AE-P979C-TV
IMS Manufacturing Inventory
    Control System              DECmate II CP/M QA340-C3 A1.33.00 AE-V848A-TV
IMS Medical Office
    Management System           DECmate II CP/M QA342-C3 A1.35.00 AE-V850A-TV
IMS School Management System    DECmate II CP/M QA336-C3 A1.29.00 AE-V844A-TV
IMS Wholesale Distribution System DECmate II CP/M QA341-C3 A1.34.00 AE-V849A-TV
Matrix Aids                     DECmate II CP/M QA519-C3 A2.37.00 AE-Z203A-TV
MBASIC for DECmate II           DECmate II CP/M QA067    A0.98.02 AE-P981C-TV
Millionaire                     DECmate II CP/M QA580-C3 A2.72.01 AE-Z370B-TV
MMS-1 Materials Management System DECmate II CP/M QA770-C3 A3.33.00(?)
Money Decisions I               DECmate II CP/M QA303-C3 A1.45.03 AE-V860D-TV
Money Decisions II              DECmate II CP/M QA302-C3 A1.46.03 AE-V861D-TV
MULTIPLAN for DECmate II        DECmate II CP/M QA064    A1.01.01 AE-R352B-TV
PLANETFALL                      DECmate II CP/M QA751    A2.91.00 AE-AF04A-TV
RM/COBOL                        DECmate II      QA073    A2.22.01 AE-Y549B-TV
SIDEWAYS                        DECmate II      QA663    A2.80.00 AE-AH64A-TV
STARCROSS                       DECmate II      QA750    A2.86.01 AE-AF01B-TV
SUSPENDED                       DECmate II CP/M QA749    A2.90.01 AE-AF03B-TV
Target Task                     DECmate II      QA323    A0.97.01 AE-P980B-TV
TAX DECISIONS                   DECmate II CP/M QA321-C3 A1.47.01 AE-V826B-TV
THE ZORK TRILOGY                DECmate II CP/M QA744,745,746,752
                                                         A2.87.01 AE-AF02B-TV
TYCOON                          DECmate II CP/M QA582    A2.97.00 AE-AS87A-TV
WITNESS                         DECmate II CP/M QA748    A2.84.01 AE-AE99B-TV
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